Original Article

Abdominal Pain in Opiate Addicted Patients and Other Industrial Opiates

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Abstract

Background: Recognition of abdominal pain help to give better diagnostic and therapeutic approaches and prevention of unnecessary surgeries. The purpose of this study was to determine the causes of abdominal pain in opiate addicted patients and other industrial opiates.

Materials and Methods: In the observational study, a cross-sectional survey was used. A total of 130 consecutive addicted patients and other industrial opiates were enrolled from Modarres Hospital, Tehran, Iran in 2017-2018. Causes of abdominal pain in them were determined and compared across the other variables.

Results: Results of this study demonstrated that the causes of abdominal pain were: defecation problems and constipation,dyspepsia, peptic ulcer disease (PUD), acute abdomen, ileus, obstruction, and biliary problems and others (9.2%, 42.3%, 14.6%, 13.1%, 10%, 7.7%, and 3.1%, respectively).A significant relationship was found between high Lead level and constipation and dyspepsia ($P<0.05$).

Conclusion: According to the obtained results, it may be concluded that dyspepsia and PUD are most common causes of abdominal pain in addict subjects that is similar to general population and accordingly therapeutic approaches in addict subjects should be similar to the general population.

Keywords: Abdominal Pain, Addiction, Etiology

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Introduction

Addiction is an important social issue affecting 6 to 15 percent in general population[1] leading to high economic cost for health systems with an increasing trend[1,2]. Approaches for limitting of access to substance are important stages to control of addiction[3,4]. Abused substances would impose significant adverse effects on different body organs and health status[5].

Opioids either natural or synthetic are important common cause of addiction with multiple pharmacological and pathological consequences in abusers[6-8]. Opioids would affect the receptors in central nervous system and gastrointestinal system leading to systemic adverse effects[9]. Opioids may affect endocrine status with alterations such as increase in tiroid stimulating hormone and decrease of T4[10]. In addition, increasing rate of hepatic and renal failure in patients with addiction has been repored[11,12]. Despite short pleasant effects especially with analgesic outcomes, the long-term side effects are harmfull[12]. Opioid Bowel Dysfunction (OBD) is an important type of gastrointestinal adverse effects with symptoms such as constipation, abdominal cramps and pain, nausea, bloating, and gastroesophageal reflux,

resulting from effects of opioids on alimentary tract[13]. Recognition causes of abdominal pain would help to adopte better diagnostic and therapeutic approaches and prevention of unnecessary surgeries in addicted patients. Hence, the purpose in this study was to determine the causes of abdominal pain in patients addicted to opiate and other industrial opiates.

Methods

In the observational study, cross-sectional comparative survey was used. A total of 130 consecutive patients who addicted to opiate and other industrial opioids with abdominal pain were enrolled from Modarres Hospital, Tehran, Iran in 2017-2018. Inclusion criteria were opioid dependence. Exclusion criteria were, not having these items; history of abdominal surgery in last month, use of gastrointestinal affecting drugs, history of trauma, consumption of alcohol, use of corticosteroids and anti-coagulants, history of radiotherapy and cancer, and pregnancy.

Local ethical committee of Shahid Beheshti University of Medical Sciences approved the study under the code 1397.507 in 97/2/9. Diagnosis of addiction was according to DSM-IV criteria. The causes of abdominal pain in them were determined and compared across the other variables. For diagnosis of the definite cause, clinical examination, radiography, endoscopy, colonoscopy, laparoscopy, CT scan, ultrasound, and laboratory assessments were done and the results were recorded.

Data statistical analysis among 130 patients was done with SPSS (Statistical package for social sciences) software (Version 13.0). We utilized Chi-Square and Fisher tests for comparative analysis and the P values less than 0.05 were considered statistically significant.

Results

The patients were in 21.5% younger than 40 years of age and 3.1% of cases were female. Only 4.6% had academic literacy and the socioeconomic status was high in 3.1%. The opium was the most common type of used substance (Table 1). Duration of substance use was more than one year in 32.3% of patients. Route of use was oral, injection, perspiration, pipe, and multiple in 47.7%, 18.5%, 21.5%, 4.6%, and 7.7%, respectively. The serum lead level was abnormal in 47 cases (36.2%). In addition, the endoscopy and ultrasound results were abnormal in 26.9% and 33.1%, respectively. Type pf GI symptoms are mentioned in Table 2.

The sedatives were used by 27.7% of patients. The causes of abdominal pain are shown in Table 3. The colonoscopy results were abnormal in 44.1% and the CT scan was abnormal in 42.9%. The other diagnostic tests were abnormal in 35.9%. Lead level (P=0.030) and type of GI complaint (P=0.0001) were related to cause of abdominal pain (P<0.05) and the lead level was related to constipation and dyspepsia.

Discussion

In this study, the causes of abdominal pain in addict patients were assessed. The cause of abdominal pain was defecation problem, dyspepsia, PUD, acute abdomen, ileus, obstruction, and other causes in 9.2%, 42.3%, 14.6%, 13.1%, 10%, 7.7%, and 3.1%, respectively. In addition, type of symptom and the serum lead levels were related to the causes. Zylberberg et al[14] reported that a main cause for abdominal pain in opium-addicted patients was biliary problems. In our study, also two cases had biliary disorders among four cases with “others” as the cause of abdominal pain.

The study by Chuah et al[15] among seven patients with addiction reported biliary problems as a main cause of abdominal pain as well as our study. In addition, Choung et al[16] assessed 4898 patients with 117 cases that had GI symptoms especially pain and constipation. Also in our study, nearly one out of ten patients had constipation. The study by Malekzadeh et al[17] reported increased risk of death due to GI disorders and also GI malignancy in opium addicted subjects. However, in our study no death and malignancy cases were observed among patients. The study by Ahmadi et al[18] showed that vomiting and burn sensations were among common GI symptoms among opium users. These symptoms were also common in our patients. They reported significant association between abdominal pain and sedative use. However, in our study it had no significant association due smaller sample size.

Table 1: Type of abused substance among patients.

Substance	Frequency	Percent
Opium	67	51.5
Morphine	19	14.6
Heroin	12	9.2
Crack	9	6.9
Cannabis	7	5.4
Tramadol	6	4.6
Others	7	5.4
Multiple substances	3	2.3

Table 2: Type of gastrointestinal symptoms among patients.

Symptom	Frequency	Percent
Constipation	65	50
Nausea/Vomiting	8	6.2
Dysphagia	12	9.2
Bloating	9	6.9
Diarrhea	5	3.8
Chronic abdominal pain	11	8.5
Incontinence	5	3.8
GERD	5	3.8
Halitosis	5	3.8
Others	5	3.8

Table 3: Cause of abdominal pain among patients.

Cause	Frequency	Percent
Defecation Problem	12	9.2
Dyspepsia	55	42.3
PUD	19	14.6
Acute Abdomen	17	13.1
Ileus	13	10.0
Obstruction	10	7.7
Others	4	3.1

Conclusion

According to the obtained results in the present study, it concluded that dyspepsia and PUD are most common causes of abdominal pain in addict subjects that is similar to general population and accordingly therapeutic approaches in addict subjects should be similar to the general population and there isn't any relationship between GI malignancy and opiates addiction .However furthure studies with larger sample size are required to attain more definite results.

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